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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/460,742	12/14/99	NAIR	R 884.229US1

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EXAMINER	
KIM, J	
ART UNIT	**PAPER NUMBER**
2816	

DATE MAILED: 07/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/460,742	Applicant(s) Nair et al.	
	Examiner Jung Kim	Art Unit 2816	

-- The MAILING DATE of this communication app ars on the cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-6,9,10 and 14-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-6,9,10 and 14-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2-3* .
18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other: .

DETAILED ACTION

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Operating voltage of "between about .5 volts and about 1.5 volts" in claim 5 lacks antecedent basis.

Claim Rejections - 35 USC § 112

Claims 4-6 and 14-16 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

With respect to claim 4, the claimed function of "decreasing noise signals above an absolute value of an operating voltage value and increasing noise signals below the absolute value of the operating voltage value" is not enabled by the specification. It is not clear how such function is achieved since explanation of steps of how that process occurs is lacking in the specification; for instance, lines 19-20 of page 7 states that such process occurs but does not explain how. It is not clear how the claimed function is enabled through the specification. Claims 5-6 are rejected for including the same deficiencies of claims 4. Similarly, the claimed function of providing an asymmetrical response to incremental voltage variations about an operational node voltage wherein the incremental voltage variations of one polarity are damped and incremental voltage variations of the opposite polarity are amplified in claims 14-15 are not enabled by the specification. It is not clear how such function is done since explanation of steps

of how that process occurs is lacking in the specification. Claim 16 is rejected for including the same deficiency of claim 14.

Claims 4-6 and 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 4, the phrase "capable of..." does not positively recite a circuit function and it is not clear whether the claimed function does or does not occur. The phrase "the operating voltage value. \" is grammatically incorrect.

For claim 4, the claimed function of "decreasing noise signals above an absolute value of an operating voltage value and increasing noise signals below the absolute value of the operating voltage value" is not ensured by the claimed elements. As it is, the claimed transistor is just a transistor without any connections to its drain, source, gate and body, incapable of performing any such function; necessary bias connections and elements of the transistor to ensure such function must be claimed. Claims 5-6 are rejected for including the same deficiencies of claims 4. Similarly, in claims 14-16, the claimed function of providing an asymmetrical response to incremental voltage variations about an operational node voltage wherein the incremental voltage variations of one polarity are damped and incremental voltage variations of the opposite polarity are not ensured by the claimed elements. As it is, the claimed transistor is just a transistor without any connections to its drain, source, gate and body, incapable of performing any such function; necessary bias connections and elements of the transistor to ensure such function must be claimed. For claim 16, the term "the bias node voltage" lacks antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 9-10 and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Sin (US Patent No. 5130564). With respect to claim 9, Sin discloses in Fig. 5A a circuit comprising: a die (semiconductor integrated circuit chip, according to lines 8-10 of column 1, which comprises a substrate on which the Fig. 5A circuit is formed); and a transistor (the transistor VTNL in Fig. 8A forming the variable capacitor VCL in Fig. 5A) coupled between a high voltage node Vo and a low voltage node Vr and operable for controlling voltage at the low voltage node Vr (when Vo switches from high to low or low to high through the switching of the driver DRV, because of the capacitance of the capacitor VCL, Vr is also effected to some degree when the Fig. 5A circuit is implemented physically). Claim 10, according to Fig. 8A the transistor has its gate coupled to the high voltage node Vo and the source and drain coupled to the low voltage node Vr.

For claim 14, Fig. 2A-B discloses an electronic device CL coupled between the ground node VSS and the voltage node (the intervening node between VTP and VTN), providing an asymmetrical response to incremental voltage variations about an operational node voltage VTNL (according to Fig. 2B, around the threshold voltage VTNL, the capacitance of CL is asymmetrical), as called for in claim 14. For claim 15, since electric property of the capacitor

CL as shown in Fig. 2B around the point of VTNL is the same as the claimed capacitor transistor whose property is shown in Fig. 1B of the application and the prior art discloses all of the claimed structure, the accompanying characteristics including the damping and amplifying are also inherent. For claim 16, the voltage node can be about 1.3 volts at some point during transition of the voltage at the voltage node between VCC and VSS when the driver DRV switches.

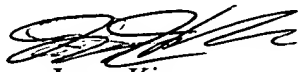
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Kim whose telephone number is 703-305-7242. The examiner can normally be reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Jung Kim
Primary Examiner
Art Unit 2816

JK
July 6, 2001